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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-----------------------|------------------|
| 10/719,525 | 11/21/2003 | Raymond A. Milio | 60,130-1926/00MRA0585 | 3378 |
| 26096 | 7590 | 12/09/2004 | EXAMINER | |
| CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009 | | | SY, MARIANO ONG | |
| | | ART UNIT | PAPER NUMBER | |
| | | | 3683 | |

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/719,525 | MILIO ET AL. |
| | Examiner Mariano Sy | Art Unit 3683 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4, 8, 9 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-7 and 10-17 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4, 8, 9 and 18-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11212003</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election without traverse of Group I, Claims 1-9 and 18-20 in the reply filed on November 15, 2004 is acknowledged. However applicant failed to elect one of the following distinct species: Specie A, figures 1-3, claims 9 and 18-20

Specie B, figure 4, claim 5

Specie C, figure 5, claims 6 and 7.

Examiner selected Specie A, figures 1-3, claims 1-4, 8, 9, and 18-20 as the elected specie. Claims 5-7 are drawn to non-elected claims, since claim 5 has the perimeter edge is a flange extending radially outwardly and claims 6 and 7 has a flange is defined by a portion of the domed-shaped portion folded back onto itself, which are structurally distinct.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "a carrier" as described in the specification on page 5, par. [21] and recited in claim 8, line 2. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be

removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishibashi et al. (JP-8-67108).

Re-claims 1 and 2 Ishibashi et al. disclosed, as shown in fig. 1-5, an axle comprising: an axle housing 2; a cover 12 having generally dome-shaped portion having a first thickness, said dome-shaped portion terminating in a perimeter edge having a second thickness greater than said first thickness, said perimeter edge including a height (start of curvature of radius toward the surface of item "2") greater than said first

thickness, wherein said perimeter edge provides a weld surface; and a weld bead securing said perimeter edge to said axle housing; wherein said second thickness is up to approximately twice said first thickness.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishibashi et al. in view of Pringle (U.S. Patent Number 4,234,120).

Re-claims 3 and 4 Ishibashi et al. fails to disclose wherein said dome-shaped portion includes a plurality of reinforcing ribs protrude and arrange radially about said dome-shaped portion. Pringle teaches, as shown in fig. 1-2, reinforcing ribs 50 protrude and arrange radially about axle cover 13. It would have been obvious to one of ordinary skill in the art to have merely utilized the known reinforcing ribs into the axle housing cover of Ishibashi et al., in view of the teaching of Pringle, in order to add strength and support to the cover.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishibashi et al. in view of Jones (U.S. Patent Number 3,715,936).

Re-claim 8 Isibashi et al. failed to disclose a recessed boss with an opening.

Jones discloses, as shown in fig. 1, an axle cover 3 having a recessed boss with an opening.

It would have been obvious to one of ordinary skill in the art to modify the cover of Ishibashi et al. having a recessed boss with an opening, as taught by Jones, in order to provide an access port to the axle assembly for service and maintenance.

8. Claims 9 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishibashi et al. (JP-8-67108) in view of Metals Handbook, 8th Edition, Welding and Brazing, page 270, fig. 27.

Reclaim 18 Ishibashi et al. discloses, as shown in fig. 1-5, an axle housing cover for securing to an axle housing 2 comprising: a generally dome-shaped portion having a first thickness, said dome-shaped portion terminating in a terminal end for engaging axle housing, said dome-shaped portion including an outer perimeter edge adjacent to said terminal end and having a second thickness different than said first thickness and the outer perimeter edge for receiving a weld bead securing the cover to the axle housing.

However Ishibashi et al. fails to disclose said outer perimeter edge lying within a boundary tangential to said dome-shaped portion immediately adjacent to said outer perimeter edge.

Metals Handbook, page 270, fig. 27 teaches a hemisphere having an outer perimeter edge lying within a boundary tangential to dome-shaped portion immediately

adjacent to said outer perimeter edge, wherein the outer perimeter edge can provide a weld surface.

One of ordinary skill in the art would modify the cover Ishibashi et al., as taught by Metals Handbook, page 270, fig. 27, is a matter of design choice and an alternate equivalent of a known terminal end of a dome-shaped cover depending upon space for welding the cover to the axle housing.

Reclaim 19 Ishibashi et al. discloses, as shown in fig. 1-5, an axle housing cover comprising: a generally dome-shaped portion having a first thickness, said dome-shaped portion terminating in a terminal end for engaging axle housing, said dome-shaped portion including an outer perimeter edge adjacent to said terminal end and having a second thickness different than said first thickness, said perimeter edge for receiving a weld bead securing the cover to the axle housing.

However Ishibashi et al. fails to disclose said outer perimeter edge adjacent to the terminal end without extending radially outwardly from said dome-shaped portion.

Metals Handbook, page 270, fig. 27, teaches a hemisphere having an outer perimeter edge adjacent to a terminal end extending radially inwardly from the dome-shaped portion and a terminal end thickness greater than the thickness of the dome-shaped wall wherein the outer perimeter edge can provide a weld surface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the terminal end by extending radially inwardly instead of radially outwardly in view of the teaching of Metals Handbook, page 270,

fig. 27, since it had been held that a mere reversal of the essential parts of a device involves routine skill in the art. *In re Einstein*, 8 USPQ 167.

Reclaim 20 Ishibashi et al. discloses, as shown in fig. 1-5, wherein the second thickness is greater than said first thickness, said second thickness having a height (start of curvature of radius toward the surface of item "2") greater than said first thickness.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariano Sy whose telephone number is 703-308-3427. The examiner can normally be reached on Mon.-Fri. from 9:00 A.M. to 3:00 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci, can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Sy

December 1, 2004

M. C. Graham
12/8/2004

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PRIMARY EXAMINER
GROUP 310